

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended): A system for providing assistance in regenerating depollution means ~~(1)~~ associated with oxidation catalyst-forming means ~~(2)~~ integrated in an exhaust line ~~(3)~~ of a motor vehicle diesel engine ~~(4)~~, and in which the engine ~~(4)~~ is associated with common rail means ~~(7)~~ for feeding fuel to the cylinders of the engine and adapted, at constant torque, to implement a strategy of regeneration by injecting fuel into the cylinders in at least one post-injection, the system ~~being characterized in that it comprises~~comprising:

- means ~~(8)~~ for detecting a request ~~(req.RG)~~ for regeneration, and thus for post-injection;

- means ~~(9, 10)~~ for detecting a state in which the vehicle accelerator pedal is being raised or a stage in which the vehicle engine is idling;

- acquisition means ~~(11)~~ for acquiring the temperature downstream from the catalyst-forming means ~~(2)~~;

- means ~~(8)~~ for responding to said temperature to determine a maximum quantity of fuel to be injected during post-injections during stages in which the engine is returning to idling as a result of the accelerator pedal being raised and stages during which the engine is idling; and

- means ~~(7, 8)~~ for immediately interrupting the or each post-injection if the quantity of fuel injected reaches the predetermined maximum quantity during a stage of returning to idling, and/or for progressively reducing the or each post-injection when the quantity of fuel injected reaches the predetermined maximum quantity during a stage of the engine idling.

2. (Currently amended): A system according to claim 1, ~~characterized in that~~wherein the reduction means (7, 8) are adapted to reduce the or each post-injection in application of a calibratable slope (20).

3. (Currently amended): A system according to claim 1 or claim 2, ~~characterized in that~~, wherein the depollution means (1) comprise a particle filter.

4. (Currently amended): A system according to claim 1, 2, or 3, ~~characterized in that~~wherein the depollution means (1) comprise a NOx trap.

5. (Currently amended): A system according to ~~any preceding~~ claim, ~~characterized in that~~ 1, wherein the fuel includes an additive for being deposited together with the particles with which it is mixed on the depollution means (1) in order to facilitate regeneration thereof.

6. (Currently amended): A system according to ~~any one of~~ ~~claims~~claim 1 to 4, ~~characterized in that~~, wherein the fuel includes an additive that forms a NOx trap.

7. (Currently amended): A system according to ~~any preceding~~ claim, ~~characterized in that~~ 1, wherein the engine is associated with a turbocharger (5, 6).

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